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A NEW JUNIPER AHPID FROM WESTERN COLORADO

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The new species described here was collected on *Juniperus utahensis* growing on the Colorado National Monument near Grand Junction, Colorado.

Cinara wahhaka n. sp.

Apterous viviparous female:

Size and general color.—Average length from vertex to tip of anal plate 1.63mm. Range in size from 1.57-1.78mm. Width of head through eyes .51-.57mm. Color of head, thorax and abdomen dark brown. Thorax with just a suggestion of two dusky lateral stripes. Mounted specimens show the thorax with darker irregular shaped spots arranged in transverse rows. Similar spots are found in two transverse rows on the first two abdominal segments. Smaller and more rounded spots are arranged in two rows on each side of the remainder of the abdomen. Abdominal spiracles surrounded by small brownish spots. Spots on thorax and dorsum of abdomen suggestive of wax glands, but there is no powder or pulverulent matter present, the entire body presenting a highly polished appearance. First two antennal segments concolorous with head or slightly dusky. Antennal segments three, four and base of five pale, remainder of antennae dusky. Femora shading from tan to brown with apical regions darker. Tibae pale except for apical regions which are concolorous with tarsi, which are dusky. Cornicles dusky, cauda and anal plate, and band just anterior to cauda the same.

Head and appendages.—Proportional lengths of antennal segments as follows: III .24-.28, most common length .27mm., IV .10-.11, most common length .11mm., V .128-.143mm. always longer than IV. VI .042-.057mm + .028mm. Secondary sensoria distributed as follows: III none, four none, five one. The primary sensorium on six large, round, free from hair ring with two or three marginal sensoria at the side, these are not always easily seen. The unguis is rather thick and stubby. Hair on antennae exceedingly sparse, fine and short, that on third segment being considerably less than half width of segment in length. Ocular tubercles present, but poorly developed. Head with a median suture. Hair on head exceedingly sparse, fine and even shorter than hair on antennae, not always sharp pointed. Vertex and anterior margin of head often free from hair. Rostrum as a rule attaining cornicles.

Thorax.—Length of hind tibiae varying from .958-1.07mm. Hind tarsi .243mm. in length. First segment of hind tarsus with about nine hair, on inner side, none on outer. Outer surface of hind tibiae with a few widely scattered fine short hair, hair on inner surface of hind tibiae not numerous and considerably shorter than width of tibiae.

Abdomen.—Base of cornicles small in comparison to diameter of rim, varying from .10-.12mm. Base of corniclues almost free from hair. Hair when present never more than six and confined for the most part to extreme edge of base. It is common for a cornicle to have only two

or three hair. Hair on cornicles longer than that on dorsum of abdomen. Hair on abdomen with the exception of that on anal plate and cauda very sparse, variable in length, but for the most part very short and not always sharp pointed. Hair on cauda and anal plate long, rather fine, present in moderate amount. The cauda is rounded but rather narrow.

Oviparous female:

In most respects this form is similar to that of the apterous viviparous female. Length carying from 1.781-1.85mm. Width across eyes .54-.60mm. Third antennal segment .114-.157mm. Fourth antennal segment varying from .114-.143mm. Fifth antennal segment varying from .43-.157mm. Sixth antennal segment varying from .042 + .028mm.-.042 + .042mm. Hind tibiae 1.11mm. in length. Hind tarsi .248mm. long. Hind tibiae swollen and rather bumpy in middle region. Sensoria rather tuberculate and difficult to see because of lack of color in this region of tibiae. Hair on tibiae more abundant and longer than that found on tibiae of apterous viviparous female.

Holotype apterous viviparous female Sept. 9, 1951. Morphotype oviparous female Oct. 2, 1951. Holotype and morphotype deposited in the United States National Museum. Paratypes taken on following dates: Sept. 9, 18, 23, and Oct. 2, 1951. On *Juniperus utahensis.* This species was only located once in nature although much time was spent in trying to locate other colonies. *Cinara wahhaka* feeds on the small green twigs (leaves) of Juniper. It appears to be closely allied to *Cinara burrilli* (Wilson), Canad. Ent. 51, p. 42, 1919, from which it differs in size, length and amount of hair, size of cornicles, and much fewer hair on cornicles and perhaps in color and lack of pulverulence.

Cinara burrilli (Wilson)

Through the kind and much appreciated cooperation of Prof. M. A. Palmer and Dr. G. F. Knowlton I have been enabled to study some of the original material of this species collected by Profg. Burrill. I question if Wilson saw these specimens at the time he described the species, but they unquestionably form a part of the cotype material. Wilson's original description was based in part on notes taken by Burrill in the field. There is much in the original description that does not fit the specimens at hand and I am almost convinced that the description was based on two species. I have not seen the type, but Prof. Palmer has sent me measurements taken from it, which indicate that it does not differ from the cotype material seen by me. The apterous viviparous females differ from the description in the following respects: They are smaller, being about 2.5mm. long, not 3mm. The third antennal segment is free from secondary sensoria, and varies in length from .30-.35mm., not .42mm. The base of the cornicles is not as small as the description leads one to suspect. The hair are not short, neither are they inconspicous. I suspect that the color was not black.

Wilson quotes Burrill as saying that the species feeds on the bark on the underside of the limbs. The slides labeled by Burrill state that the specimens were "taken on the upper twigs." The color is described as "black with pruinose patches which produce a calico effect." It is further stated that they greatly resemble the bark in color. The mounted specimens suggest that the color was something other than black, and I question if the specimens could be black and resemble the bark, even if the pruinose condition were present, and still live on the twigs. Can it be that Burrill took his color and habitat notes from the species described by Gillette and Palmer in 1924 and named *Lachnus sabinae?*